



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,843	12/27/2001	Craig Dillon	13553-06830	9057

7590 06/02/2006

Glenn Patent Group
3475 Edison Way
Suite L
Menlo Park, CA 94025

EXAMINER

BLACK, LINH

ART UNIT	PAPER NUMBER
----------	--------------

2163

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/032,843	Applicant(s) DILLON ET AL.	
	Examiner LINH BLACK	Art Unit 2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 and 46-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-43 and 46-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Examiner acknowledges applicants' "DECLARATION UNDER 37 CFR 1.131, filed on 8/8/05 and 2/17/06. Claims 1-43, 46-60 are pending in the application. Claims 1, 20, 26, 34, 40, and 46 are independent claims.

Affidavit under 37 C.F.R. § 1.131

The affidavit filed on 30 September 2005 under 37 CFR § 1.131 has been considered but is ineffective to overcome the **Koninklijke Philips Electronics N.V.** reference, Strubbe et al. (US 6795808) and the Accenture, LLP reference, Mikurak (US 6606744).

MPEP § 715.07 (I) states, *inter alia*,

The essential thing to be shown under 37 CFR § 1.131 is priority of invention and this may be done by any satisfactory evidence of the fact. FACTS, not conclusions, must be alleged. Evidence in the form of exhibits may accompany the affidavit or declaration. Each exhibit relied upon should be specifically referred to in the affidavit or declaration, in terms of what it is relied upon to show.

A general allegation that the invention was completed prior to the date of the reference is not sufficient. *Ex parte Saunders*, 1883 C.D. 23, 23 O.G. 1224 (Comm'r Pat. 1883). Similarly, a declaration by the inventor to the effect that his or her invention was conceived or reduced to practice prior to the reference date, without a statement of facts demonstrating the

correctness of this conclusion, is insufficient to satisfy 37 CFR § 1.131.

The affidavit or declaration and exhibits must clearly explain which facts or data applicant is relying on to show completion of his or her invention prior to the particular date. Vague and general statements in broad terms about what the exhibits describe along with a general assertion that the exhibits describe a reduction to practice "amounts essentially to mere pleading, unsupported by proof or a showing of facts" and, thus, does not satisfy the requirements of 37 CFR § 1.131(b). *In re Borkowski*, 505 F.2d 713, 184 USPQ 29 (CCPA 1974). Applicant must give a clear explanation of the exhibits pointing out exactly what facts are established and relied on by applicant. 505 F.2d at 718-19, 184 USPQ at 33. See also *In re Harry*, 333 F.2d 920, 142 USPQ 164 (CCPA 1964) (Affidavit "asserts that facts exist but does not tell what they are or when the occurred.")

In the case of the instant affidavit, it appears that the Applicant has set out specific facts which attempt to demonstrate that the claimed invention was reduced to practice before the date of the applied references, supported by two exhibits. As such, the Applicant has met his burden under 37 C.F.R. § 1.131(b).

From MPEP § 715.07 (III):

The affidavit or declaration must state FACTS and produce such documentary evidence and exhibits in support thereof as are available to show conception and completion of invention in this country or in a NAFTA or WTO member country (MPEP § 715.07(c)), at least the conception being at a date prior to the effective date of the reference. Where there has not been reduction to practice prior to the date of the reference, the applicant or patent

owner must also show diligence in the completion of his or her invention from a time just prior to the date of the reference continuously up to the date of an actual reduction to practice or up to the date of filing his or her application (filing constitutes a constructive reduction to practice, 37 CFR § 1.131). As discussed above, 37 CFR § 1.131(b) provides three ways in which an applicant can establish prior invention of the claimed subject matter. The showing of facts must be sufficient to show:

(A) reduction to practice of the invention prior to the effective date of the reference; or

(B) conception of the invention prior to the effective date of the reference coupled with due diligence from prior to the reference date to a subsequent (actual) reduction to practice; or

(C) conception of the invention prior to the effective date of the reference coupled with due diligence from prior to the reference date to the filing date of the application (constructive reduction to practice).

Conception is the mental part of the inventive act, but it must be capable of proof, as by drawings, complete disclosure to another person, etc. In *Mergenthaler v. Scudder*, 1897 C.D. 724, 81 O.G. 1417 (D.C. Cir. 1897), it was established that conception is more than a mere vague idea of how to solve a problem; the means themselves and their interaction must be comprehended also.

From MPEP § 2138.04[R-1]:

Conception has been defined as "the complete performance of the mental part of the inventive act" and it is "the formation in the mind of the inventor of a definite and permanent idea of the complete and operative invention as it is thereafter to be applied in practice...." *Townsend v. Smith*, 36 F.2d 292, 295, 4 USPQ 269, 271 (CCPA 1930). "[C]onception is established when the

invention is made sufficiently clear to enable one skilled in the art to reduce it to practice without the exercise of extensive experimentation or the exercise of inventive skill." *Hiatt v. Ziegler*, 179 USPQ 757, 763 (Bd. Pat. Inter.1973). Conception has also been defined as a disclosure of an invention which enables one skilled in the art to reduce the invention to a practical form without "exercise of the inventive faculty." *Gunter v. Stream*, 573 F.2d 77, 197 USPQ 482 (CCPA 1978). See also *Coleman v. Dines*, 754 F.2d 353, 224 USPQ 857 (Fed. Cir. 1985) (It is settled that in establishing conception a party must show possession of every feature recited in the count, and that every limitation of the count must have been known to the inventor at the time of the alleged conception. Conception must be proved by corroborating evidence.)

In the case of the instant affidavit, since the Applicants are alleging actual reduction to practice before the date of the applied references, the date of conception is not an issue.

Regarding diligence, MPEP § 715.07(a) states:

Where conception occurs prior to the date of the reference, but reduction to practice is afterward, it is not enough merely to allege that applicant or patent owner had been diligent. *Ex parte Hunter*, 1889 C.D. 218, 49 O.G. 733 (Comm'r Pat. 1889). Rather, applicant must show evidence of facts establishing diligence.

What is meant by diligence is brought out in *Christie v. Seybold*, 1893 C.D. 515, 64 O.G. 1650 (6th Cir. 1893). In patent law, an inventor is either diligent at a given time or he is not diligent; there are no degrees of diligence. An applicant may be diligent within the meaning of the patent law when he or she is doing nothing, if his or her lack of activity is excused. Note, however, that the record must set forth an explanation or excuse for the inactivity; the

USPTO or courts will not speculate on possible explanations for delay or inactivity. See *In re Nelson*, 420 F.2d 1079, 164 USPQ 458 (CCPA 1970). Diligence must be judged on the basis of the particular facts in each case. See MPEP § 2138.06 for a detailed discussion of the diligence requirement for proving prior invention.

Under 37 CFR 1.131, the critical period in which diligence must be shown begins just prior to the effective date of the reference or activity and ends with the date of a reduction to practice, either actual or constructive (i.e., filing a United States patent application). Note, therefore, that only diligence before reduction to practice is a material consideration. The "lapse of time between the completion or reduction to practice of an invention and the filing of an application thereon" is not relevant to an affidavit or declaration under 37 CFR 1.131. See *Ex parte Merz*, 75 USPQ 296 (Bd. App. 1947).

As stated above, since the Applicant alleges an actual reduction to practice prior to the date of the applied reference, diligence is not at issue.

Regarding reduction to practice, MPEP § 715.07 states:

In general, proof of actual reduction to practice requires a showing that the apparatus actually existed and worked for its intended purpose.

From MPEP § 2138.05:

Reduction to practice may be an actual reduction or a constructive reduction to practice which occurs when a patent application on the claimed invention is filed. The filing of a patent application serves as conception and constructive reduction to practice of the subject matter described in the application. Thus the inventor need not provide evidence of either conception or actual reduction to practice when relying on

the content of the patent application. *Hyatt v. Boone*, 146 F.3d 1348, 1352, 47 USPQ2d 1128, 1130 (Fed. Cir. 1998).

When a party to an interference seeks the benefit of an earlier-filed U.S. patent application, the earlier application must meet the requirements of 35 U.S.C. § 120 and 35 U.S.C. § 112, first paragraph for the subject matter of the count. The earlier application must meet the enablement requirement and must contain a written description of the subject matter of the interference count. *Hyatt v. Boone*, 146 F.3d 1348, 1352, 47 USPQ2d 1128, 1130 (Fed. Cir. 1998). Proof of a constructive reduction to practice requires sufficient disclosure under the "how to use" and "how to make" requirements of 35 U.S.C. § 112, first paragraph. *Kawai v. Metlesics*, 480 F.2d 880, 886, 178 USPQ 158, 163 (CCPA 1973) (A constructive reduction to practice is not proven unless the specification discloses a practical utility where one would not be obvious. Prior art which disclosed an anticonvulsant compound which differed from the claimed compound only in the absence of a -CH₂- group connecting two functional groups was not sufficient to establish utility of the claimed compound because the compounds were not so closely related that they could be presumed to have the same utility.). The purpose of the written description requirement is "to ensure that the inventor had possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him." *In re Edwards*, 568 F.2d 1349, 1351-52, 196 USPQ 465, 467 (CCPA 1978). The written description must include all of the limitations of the interference count, or the applicant must show that any absent text is necessarily comprehended in the description provided and would have been so understood at the time the patent application was filed. Furthermore, the written description must be sufficient, when the entire specification is considered, such that the "necessary and only reasonable construction" that would be given it by a person skilled in the art is one that clearly supports each positive limitation in the count. *Hyatt v. Boone*, 146 F.3d at 1354-55, 47 USPQ2d at 1130-1132 (Fed. Cir. 1998) (The claim could be read as describing subject matter other than that of the count and thus did not establish that the applicant was in possession of the invention of the count.). See also *Bigham v. Godtfredsen*, 857 F.2d 1415, 1417, 8 USPQ2d 1266, 1268 (Fed. Cir. 1988) ("[t]he generic term halogen comprehends a limited

number of species, and ordinarily constitutes a sufficient written description of the common halogen species, except where the halogen species are patentably distinct).

"The nature of testing which is required to establish a reduction to practice depends on the particular facts of each case, especially the nature of the invention." *Gellert v. Wanberg*, 495 F.2d 779, 783, 181 USPQ 648, 652 (CCPA 1974) ("an invention may be tested sufficiently ... where less than all of the conditions of actual use are duplicated by the tests"); *Wells v. Fremont*, 177 USPQ 22, 24-5 (Bd. Pat. Inter. 1972) ("even where tests are conducted under bench' or laboratory conditions, those conditions must fully duplicate each and every condition of actual use' or if they do not, then the evidence must establish a relationship between the subject matter, the test condition and the intended functional setting of the invention," but it is not required that all the conditions of all actual uses be duplicated, such as rain, snow, mud, dust and submersion in water).

Applicant attempts to establish prior invention by showing reduction to practice of the invention prior to November 22, 1999, the effective filing date of Mikurak and October 30, 2000, the effective filing date of Strubbe et al.

Applicant must establish that what was reduced to practice is within the scope of the claimed invention. As described below, the exhibits do not support this conclusion. Applicant has failed his burden to establish that the

entire claimed invention, including all of the claimed features and limitations, was included as part of the Exhibits A-B.

Proof of actual reduction to practice requires a showing that the apparatus actually existed and worked for its intended purpose.

Insofar as applicant is relying on the Exhibits A and B to establish Reduction to Practice. However, Applicant must give a clear explanation what facts are established and relied on by applicant, which part of the Exhibits teaches which limitation of the invention.

Furthermore, the submission of Exhibits fails to provide evidence that the program/Kaleidoscope successfully ran and performed for instance, the claimed limitations. Proof can be supplied in the form of documented testing of the software.

Testing is required unless operativeness of invention is readily apparent (e.g. for simple mechanical invention).

Testing, if required, must be under actual working conditions or realistic simulation of working conditions.

Test results must be repeatable.

Finally, the Applicants should note the provisions of MPEP § 715.02(I):

I. SWEARING BEHIND ONE OF A PLURALITY OF COMBINED REFERENCES

Applicant may overcome a 35 U.S.C. 103 rejection based on a combination of references by showing completion of the invention by applicant prior to the effective date of any of the references; applicant need not antedate the reference with the earliest filing date. However, as discussed above, applicant's 37 CFR 1.131 affidavit must show possession of either the whole invention as claimed or something falling within the claim(s) prior to the effective date of the reference being antedated; it is not enough merely to show possession of what the reference happens to show if the reference does not teach the basic inventive concept.

Where a claim has been rejected under 35 U.S.C. 103 based on Reference A in view of Reference B, with the effective date of secondary Reference B being earlier than that of Reference A, the applicant can rely on the teachings of Reference B to show that the differences between what is shown in his or her 37 CFR 1.131 affidavit or declaration and the claimed invention would have been obvious to one of ordinary skill in the art prior to the date of Reference A. However, the 37 CFR 1.131 affidavit or declaration must still establish possession of the claimed invention, not just what Reference A shows, if Reference A does not teach the basic inventive concept.

For the reasons cited above, the affidavit filed by the Applicant under 37 C.F.R. § 1.131 fails to establish that the claimed invention was reduced to practice prior to the critical period. As such, the affidavit is insufficient to establish invention prior to the prior art references relied upon in the rejections of record. The rejections are maintained by the examiner.

Claim Rejections - 35 USC §

103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-31, 33-43, 46-56, 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mikurak (USP 6606744), and further in view of Strubbe et al. (US 6795808).

As per claims 1 and 46-48, Mikurak teaches

- a) a source database comprising structured data – col. 80, line 63 to col. 81, line 11.
- b) a reference database having reference data – col. 15, lines 20-40; col. 63, lines 18-31; col. 101, lines 15-31. (In the specification, pages 2-3, Applicants disclose “source database” contains investment/financial transactions, and “reference database” comprises the Internet – page 4, line 20.)
- c) a locator component configured to use the structured data to locate reference data in the reference database suitable for association with the source database - col. 180, line 50 to col. 181, line 16; col. 187, line 60 to col. 188, line 42; col. 259, lines 10-51.

Mikurak teaches data mining involves the development of tools that analyze large databases to extract useful information from them such as customer purchasing

patterns or purchasing habits, such purchasing habits can provide invaluable marketing information (predict trends) – col. 80, line 63 to col. 81, line 62; fig. 52; col. 35, lines 20-26; Mikurak teaches data mining classifier, and the ability to construct class descriptions - col. 81, lines 44-46.

According to the Microsoft Computer Dictionary – Fourth Edition, **descriptor** is defined as “1. In information retrieval, a word, similar to an index entry in a book, that identifies a significant topic or element in a stored document or group of documents. It is used as a key in rapid search and retrieval of information. See also keyword (definition 1). 2. In programming, a piece of stored information used to describe something else, often in terms of structure, content, or some other property.” Thus, examiner interprets Applicants’ limitation: “an analyzer component configured to process the reference data into a set of descriptors” is equivalent to Mikurak’s teaching of data mining classifier with the ability to construct class descriptors - col. 80, line 63 to col. 81, line 62; especially col. 81, lines 44-46.

However, Mikurak does not explicitly disclose the augmented database. Strubbe et al. (US 6795808) teaches key word descriptors and search vector/class, classifiers – col. 18, lines 18-30; mood/personality classifier and predicting a probability – col. 22, lines 49- 60; augmenting a preference database – col. 8, lines 42-45. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Mikurak’s teaching with Strubbe’s teaching in order to allow searches to be conducted on a better data-organized database, the augmented database, thus, it provide quicker and better search results.

Mikurak anticipated claims 2 and 49 by the following:

wherein the source database contains financial transaction data – col. 96, lines 29-54;
col. 112, lines 31-65.

Mikurak anticipated claim 3 by the following:

wherein the source database contains telephone call detail records – col. 2, line 53 to
col. 3, line 3; col. 39, line 33 to col. 40, line 16; col. 58, lines 30-40.

wherein the reference database contains business indices and telephone directories
augmented by public information on merchants and service providers – col. 78, lines 29-
44; col. 181, line 51 to col. 182, line 10.

Mikurak anticipated claim 4 by the following:

wherein the source database contains investment transactions – col. 78, lines 29-44;
col. 80, line 63 to col. 81, line 11; col. 209, lines 1-42.

the reference database contains public information regarding companies, mutual funds
and/or other investment interests - col. 15, lines 20-40; col. 63, lines 18-31; col. 101,
lines 15-31; col. 159, lines 34-64.

Mikurak anticipated claim 5 by the following:

wherein the source database contains insurance transactions; wherein the reference
database contains information regarding insurance products, claims and/or insurance

evaluations – col. 101, line 32 to col. 102, line 27; col. 239, lines 29-38.

Mikurak anticipated claim 6 by the following:

wherein the source database contains product inventories - col. 80, line 63 to col. 81, line 11.

wherein the reference database contains information describing products - col. 15, lines 20-40; col. 63, lines 18-31; col. 101, lines 15-31.

Mikurak anticipated claim 7 by the following:

wherein the source database contains Internet browser view transactions – col. 100, line 51 to col. 101, line 31.

wherein the reference database contains the Internet pages of the browser view transactions – col. 108, line 3-49.

Mikurak anticipated claim 8 by the following:

wherein the source database contains retail transactions at an individual product level – col. 110, lines 16-42.

wherein the reference database contains product information from catalogs – fig. 101; col. 95, lines 20-60.

Mikurak anticipated claims 9 and 50 by the following:

Art Unit: 2163

wherein the structured data comprises at least a name or identifier corresponding to a merchant, product and/or service – col. 159, lines 20-33; col. 181 to col. 182, line 10.

Mikurak anticipated claims 10 and 51 by the following:

wherein the reference database contains data in an unstructured format – col. 112, line 43 to col. 113, line 43.

Mikurak anticipated claims 11 and 52 by the following:

wherein the reference database comprises a public database such as the Internet – col. 63, line 18-31; col. 79, lines 29-45; col. 101, lines 9-31.

Mikurak anticipated claims 12 and 53 by the following:

wherein the locator component locates electronic pages on the Internet related to merchant, product and/or service identified of the structured data in the source database – col. 78, lines 29-44; col. 95, lines 33-60; col. 108, lines 3-62.

Mikurak anticipated claims 13 and 54 by the following:

wherein the locator component includes a spider module that searches for embedded links, keywords and/or references in the text found at the located electronic pages – col. 259, lines 19-27; col. 187, line 60 to col. 188, line 18.

Mikurak anticipated claims 14 and 55 by the following:

wherein the locator component retrieves the natural language text from the located electronic pages – col. 158, line 62 to col. 159, line 52; col. 95, lines 20-60.

Mikurak anticipated claims 15 and 56 by the following:

wherein the processing of reference data in the reference database is accomplished by reducing the natural language text to a set of weighted keywords – col. 96, lines 29-54; col. 99, line 1-60; col. 181, line 51 to col. 182, line 10.

Mikurak anticipated claims 17 and 58 by the following:

wherein the predictive modeling module uses one or more of the following methodologies: model-based regression, non-parametric regression (e.g., neural networks), Bayesian inference, hidden Markov models, fuzzy logic models, evolutionary models; or decision trees - fig. 52; col. 81, lines 44-55; col. 140, line 60 to col. 141, line 15.

Mikurak anticipated claims 18 and 59 by the following:

wherein the source database comprises account based transactional records and the analyzer component aggregates the data from the source database and its associated reference data by reference to an account field – fig. 26; col. 47, lines 54-63; col. 103, lines 10-40.

Mikurak anticipated claims 19 and 60 by the following:

wherein the association of unstructured data from the reference database is delivered through a predictive statistical model built from known historic outcomes associated with records within the source database – fig. 52; col. 81, lines 44-55; col. 140, line 60 to col. 141, line 15; col. 158, line 52-61.

As per claim 20, Mikurak teaches

- a) a source database comprising a plurality of transaction data records with each transaction data record having at least one field identifying a merchant, product and/or service - col. 80, line 63 to col. 81, line 11.
- b) a merchant identifier database comprising a plurality of reference addresses and value description identifiers for merchants, products and/or services – col. 96, lines 29-67; col. 224, lines 48-67.
- c) a reference database - col. 15, lines 20-40; col. 63, lines 18-31; col. 101, lines 15-31.
- d) an address locating module configured to search the reference database to locate references for merchants, products and/or services identified in the source database - col. 180, line 50 to col. 181, line 16; col. 187, line 60 to col. 188, line 42; col. 259, lines 10-51.
- e) an account description database - col. 44, lines 32-67; col. 254, lines 47-62; col. 299, lines 40-61.
- g) a merchant analysis builder module configured to condense the references provided by the address locating module into a value description and store the value description

in the merchant identifier database – col. 101, lines 9-31; col. 224, lines 11- 46; col. 180, line 50 to col. 181, line 16.

Mikurak teaches data mining involves the development of tools that analyze large databases to extract useful information from them such as customer purchasing patterns or purchasing habits, such purchasing habits can provide invaluable marketing information (predict trends) – col. 80, line 63 to col. 81, line 62; fig. 52; col. 35, lines 20-26; Mikurak teaches data mining classifier, and the ability to construct class descriptions - col. 81, lines 44-46.

However, Mikurak does not explicitly disclose a transaction augmentation module, configured to attach the value description of a particular merchant, product and/or service to the transaction data records and store the resulting combined record in the account description database. Strubbe et al. (US 6795808) teaches key word descriptors and search vector/class, classifiers – col. 18, lines 18-30; mood/personality classifier and predicting a probability – col. 22, lines 49- 60; augmenting a preference database data – the abstract; col. 8, lines 42-45.

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Mikurak's teaching with Strubbe's teaching in order to allow searches to be conducted on a better data-organized database, the augmented database, thus, it provide quicker and better search results.

f) a transaction augmentation module, configured to attach the value description of a particular merchant, product and/or service to the transaction data records and store the

Art Unit: 2163

resulting combined record in the account description database – col. 89, lines 9-65; col. 99, lines 37-60; col. 292, lines 33-55; col. 223, lines 31-67.

Mikurak anticipated claim 21 by the following:

an account descriptor builder module configured to generate descriptive account records from the merchant identifier database and the source database – col. 47, lines 54-63; col. 187, line 60 to col. 188, line 42; col. 259, lines 10-51.

Mikurak anticipated claim 22 by the following:

a lexicographic database configured to index value description identifiers to keywords - col. 96, lines 29-54; col. 99, line 1-60; col. 181, line 51 to col. 182, line 10.

Mikurak anticipated claim 23 by the following:

wherein the reference database comprises the Internet - col. 15, lines 20-40; col. 63, lines 18-31; col. 101, lines 15-31.

Mikurak anticipated claim 24 by the following:

a predictive modeling module configured to predict future behavior of accounts, merchants, or other entities, using data from the account description database - fig. 52; col. 81, lines 44-55; col. 140, line 60 to col. 141, line 15.

Mikurak anticipated claim 25 by the following:

a data mining search engine configured to conduct keyword searches of the account description database to identify accounts, merchants, or products – col. 79, line 45 to col. 80, line 66; col. 81, lines 5-62.

As per claims 26, Mikurak teaches:

a) retrieving at least one data record recording an event from the source database – col. 44, lines 53-62; col. 96, lines 51-63; col. 112, lines 47-65.

b) identifying a field in the data record that specifies an entity – col. 48, lines 1-10; col. 113, lines 14-67; col. 225, lines 15-46.

c) locating reference data from the reference database that describes the entity specified by the entity field - col. 180, line 50 to col. 181, line 16; col. 187, line 60 to col. 188, line 42; col. 259, lines 10-51.

d) processing the reference data to form a set of keyword descriptors describing the entity - col. 80, line 63 to col. 81, line 62; col. 98, line 54 to col. 99, line 26.

f) building an account descriptor database that includes at least one data record that correlates the at least one event with the description of the entity from the augmented data record – col. 44, lines 32-67; col. 254, lines 47-62; col. 299, lines 40-61.

g) searching the account descriptor database for selected data records that meet a desired criteria – col. 44, lines 49-62; col. 79, lines 54-63; col. 129, line 50 to col. 130, line 16.

Mikurak teaches data mining involves the development of tools that analyze large databases to extract useful information from them such as customer purchasing

patterns or purchasing habits, such purchasing habits can provide invaluable marketing information (predict trends) – col. 80, line 63 to col. 81, line 62; fig. 52; col. 35, lines 20-26; Mikurak teaches data mining classifier, and the ability to construct class descriptions - col. 81, lines 44-46.

According to the Microsoft Computer Dictionary – Fourth Edition, **descriptor** is defined as “1. In information retrieval, a word, similar to an index entry in a book, that identifies a significant topic or element in a stored document or group of documents. It is used as a key in rapid search and retrieval of information. See also keyword (definition 1). 2. In programming, a piece of stored information used to describe something else, often in terms of structure, content, or some other property.” Thus, examiner interprets Applicants’ limitation: “an analyzer component configured to process the reference data into a set of descriptors” is equivalent to Mikurak’s teaching of data mining classifier with the ability to construct class descriptors - col. 80, line 63 to col. 81, line 62; especially col. 81, lines 44-46. Mikurak teaches comparison of features based on keywords, and ranked according to the number of matches – col. 81, lines 11-61; col. 99, lines 5-25.

However, Mikurak does not explicitly disclose the augmented database. Strubbe et al. (US 6795808) teaches key word descriptors and search vector/class, classifiers – col. 18, lines 18-30; mood/personality classifier and predicting a probability – col. 22, lines 49- 60; augmenting a preference database – col. 8, lines 42-45; data classification and weighted keywords – col. 13, line 45 to col. 14, line 51. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine

Mikurak anticipated claim 27 by the following:

wherein the locating reference data includes locating data in an unstructured database - col. 112, line 43 to col. 113, line 43.

Mikurak anticipated claim 28 by the following:

wherein the reference database includes at least a portion of the Internet – col. 97, line 25 to col. 98, line 11; col. 135, lines 3-18.

Mikurak anticipated claim 29 by the following:

wherein the locating reference data includes locating electronic pages using the entity specified in the at least one data record - col. 180, line 50 to col. 181, line 16; col. 187, line 60 to col. 188, line 42; col. 259, lines 10-51.

Mikurak anticipated claim 30 by the following:

wherein locating reference data further spidering for additional electronic pages cited within the located electronic pages - col. 259, lines 19-27; col. 187, line 60 to col. 188, line 18.

Mikurak anticipated claim 31 by the following:

wherein locating reference data includes reducing natural language text to keyword descriptors - col. 80, line 63 to col. 81, line 62; col. 98, line 54 to col. 99, line 26.

Mikurak anticipated claim 33 by the following:

storing the augmented data record in a merchant database - col. 101, lines 9-31; col. 224, lines 11- 46; col. 180, line 50 to col. 181, line 16.

As per claims 34 and 40, Mikurak teaches reading a data record from the source database – col. 171, lines 1-20; col. 239, lines 15-29; col. 80, line 63 to col. 81, line 11; searching the reference database for information describing the data record - col. 44, lines 49-62; col. 79, lines 54-63; col. 129, line 50 to col. 130, line 16. Mikurak teaches data mining involves the development of tools that analyze large databases to extract useful information from them such as customer purchasing patterns or purchasing habits, such purchasing habits can provide invaluable marketing information (predict trends) – col. 80, line 63 to col. 81, line 62; fig. 52; col. 35, lines 20-26; Mikurak teaches data mining classifier, and the ability to construct class descriptions - col. 81, lines 44-46.

According to the Microsoft Computer Dictionary – Fourth Edition, **descriptor** is defined as “1. In information retrieval, a word, similar to an index entry in a book, that identifies a significant topic or element in a stored document or group of documents. It is used as a key in rapid search and retrieval of information. See also keyword (definition 1). 2. In programming, a piece of stored information used to describe

something else, often in terms of structure, content, or some other property.” Thus, examiner interprets Applicants’ limitation: “an analyzer component configured to process the reference data into a set of descriptors” is equivalent to Mikurak’s teaching of data mining classifier with the ability to construct class descriptors - col. 80, line 63 to col. 81, line 62; especially col. 81, lines 44-46. In the specification, page 5, lines 27-28, Applicants teach “condensing the information comprises reducing the natural language text to at least one weighted keyword.” Mikurak teaches comparison of features based on keywords, and ranked according to the number of matches – col. 81, lines 11-61; col. 99, lines 5-25.

However, Mikurak does not explicitly disclose the augmented database. Strubbe et al. (US 6795808) teaches key word descriptors and search vector/class, classifiers – col. 18, lines 18-30; mood/personality classifier and predicting a probability – col. 22, lines 49- 60; augmenting a preference database – col. 8, lines 42-45; data classification and weighted keywords – col. 13, line 45 to col. 14, line 51. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Mikurak’s teaching with Strubbe’s teaching in order to allow searches to be conducted on a better data-organized database, the augmented database, thus, it provide quicker and better search results.

Mikurak anticipated claims 35 and 41 by the following:

wherein the reference database comprises the Internet - col. 15, lines 20-40; col. 63, lines 18-31; col. 101, lines 15-31.

Mikurak anticipated claim 36 and 42 by the following:

wherein the data record contains at least a merchant name or identifier - col. 159, lines 20-33; col. 181 to col. 182, line 10.

Mikurak anticipated claims 37 and 43 by the following:

wherein searching the reference database further includes locating electronic pages related to the merchant identified in the data record - col. 180, line 50 to col. 181, line 16; col. 187, line 60 to col. 188, line 42; col. 259, lines 10-51.

Mikurak anticipated claim 38 by the following:

wherein searching the reference database further includes retrieving the natural language text from the located electronic pages - col. 158, line 62 to col. 159, line 52; col. 95, lines 20-60.

Mikurak anticipated claim 39 by the following:

wherein condensing the information comprises reducing the natural language text to at least one weighted keyword - col. 96, lines 29-54; col. 99, line 1-60; col. 181, line 51 to col. 182, line 10.

Claims 16, 32, and 57 rejected under 35 U.S.C. 103(a) as being unpatentable over Mikurak (USP 6606744), and further in view of Everling et al. (USPAP 2001/0016833). As per claims 16, 32, and 57, Mikurak et al. do not explicitly suggest zip code and/or standard industry code. However, Everling et al. teach merchant transaction data mining method – the title. Everling et al. teach zip code and/or standard industry code – paragraphs 0019-0021. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Mikurak's teaching with Everling et al.'s teaching in order to study/analyze/validate/use the information provides by zip code and/or SIC to improve the network-based supply chain environment such as better source-specific regulations or market study of specific regions, or improvement of shopping processes.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINH BLACK whose telephone number is 571-272-4106. The examiner can normally be reached on 8am - 5pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LINH BLACK
Examiner
Art Unit 2163

May 30, 2006



DON WONG
SUPERVISORY PATENT EXAMINER